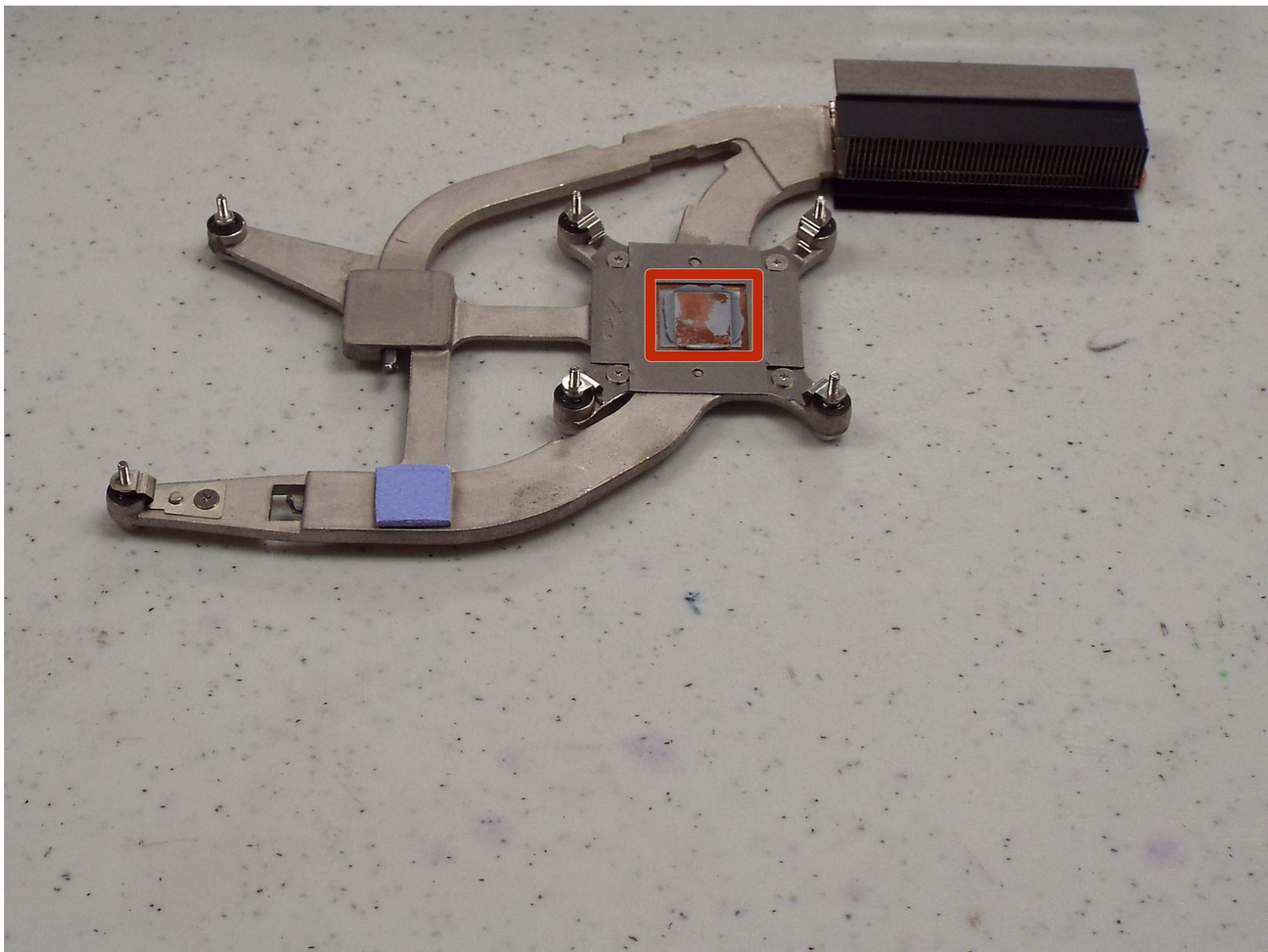




# Dell Latitude D820 Thermal Paste Replacement

We are going to demonstrate how to disassemble and apply a new layer of paste (thermal paste) to the computers processor and heat sink.

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## INTRODUCTION

Follow the motherboard replacement guide to the point the heat sink is exposed. No need to remove the motherboard.



### TOOLS:

- [Spudger](#) (1)
- [ArctiClean Thermal Cleaner](#) (1)
- [Lint-Free Cloth](#) (1)
- [Finger Stalls](#) (1)



### PARTS:

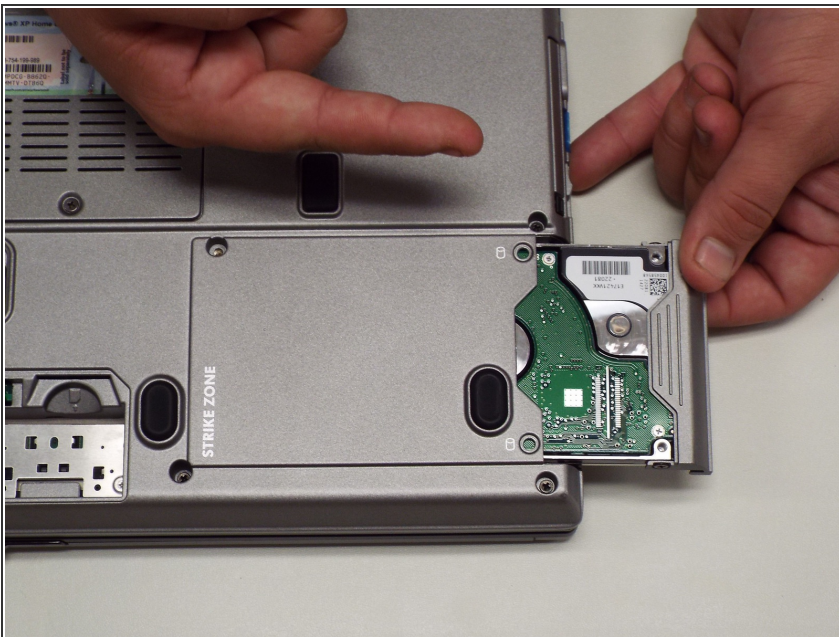
- [Arctic Silver Thermal Paste](#) (1)

## Step 1 — Motherboard



- Perform a complete system backup and shutdown the computer.
- Unplug the charger and remove the battery.
- Remove the battery by sliding the lock tab (outlined in red) and use the other hand to remove the battery.

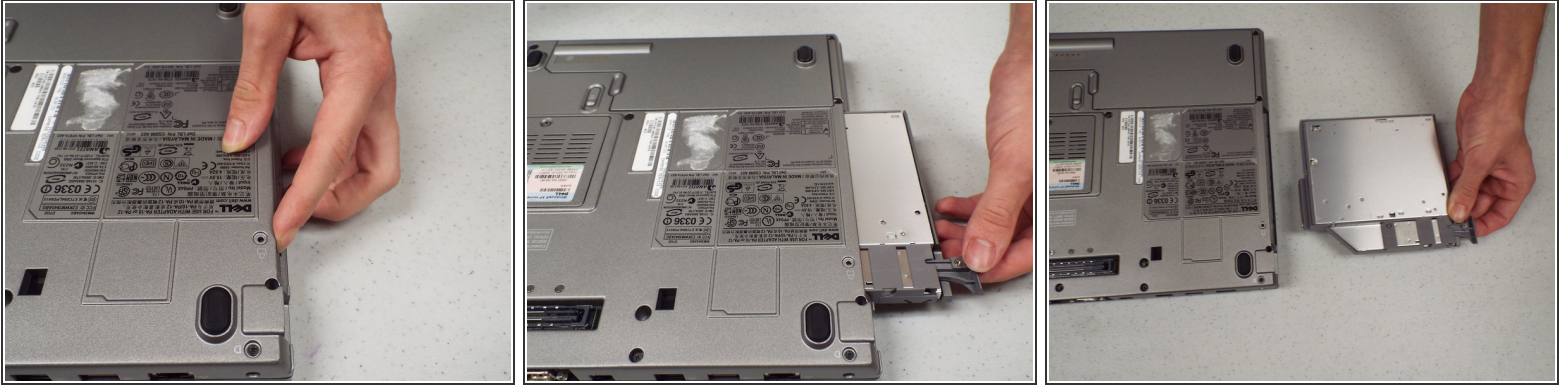
## Step 2



- Remove the hard drive
- Locate and remove three phillips head screws. These screws measure 3.55mm in length and 2.93mm in width with a fine thread.
- Remove the hard drive and set it aside trying not to touch anything but the grey plastic grip pad. Doing so may cause damage to your hard drive.

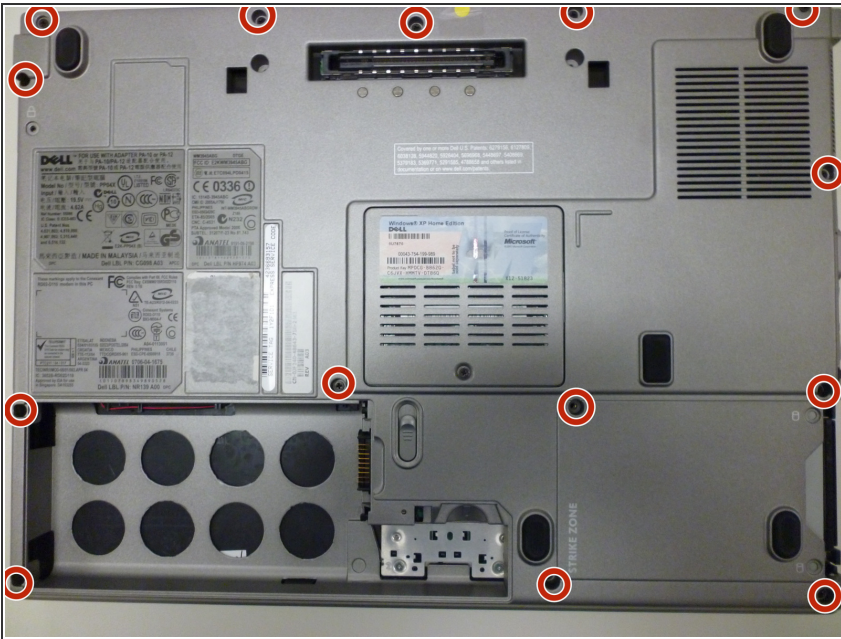


## Step 3



- Remove the CD/DVD Drive by pushing on the button under the drive.
- There may be a little resistance pulling it out.

## Step 4



- Remove the 14 Phillips screws from the bottom of the laptop.

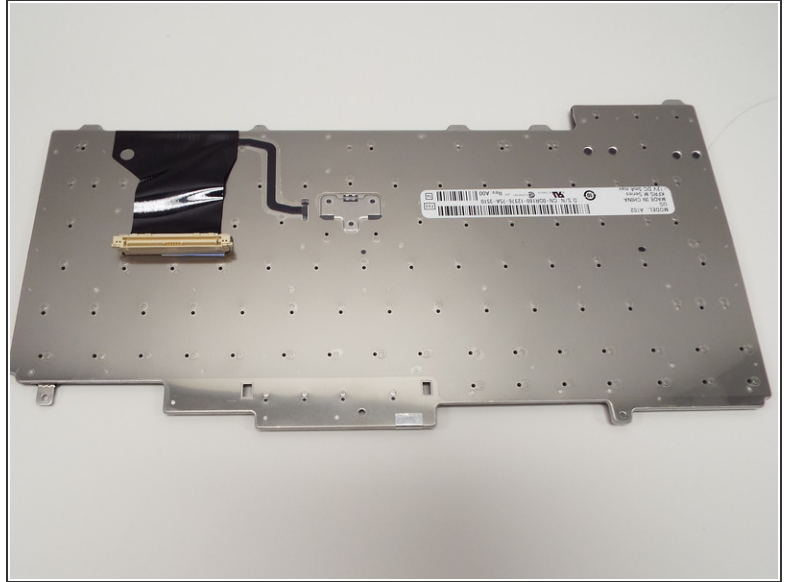
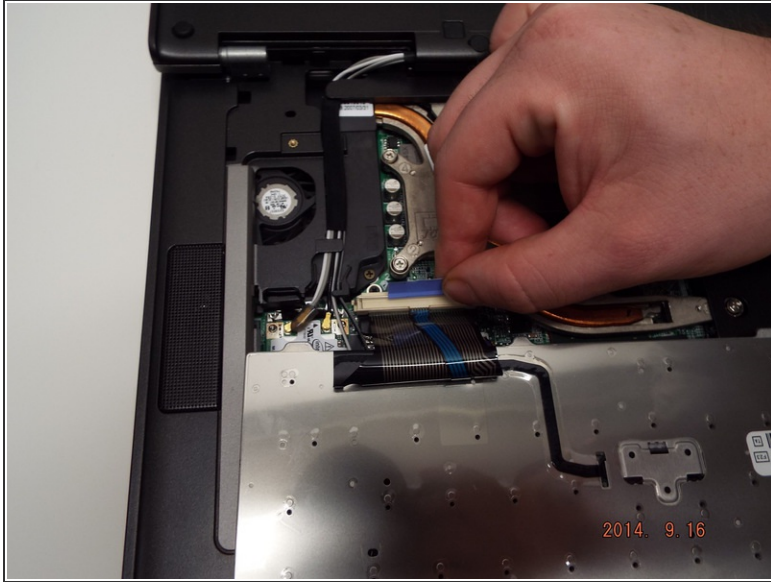
## Step 5



- Flip the laptop face up making sure the screen is opened all the way and is flat as shown in the first picture.
- Using a Plastic Pry tool carefully pry off the keyboard bezel keeping in mind **wires are attached** so do not pull too far or hard.

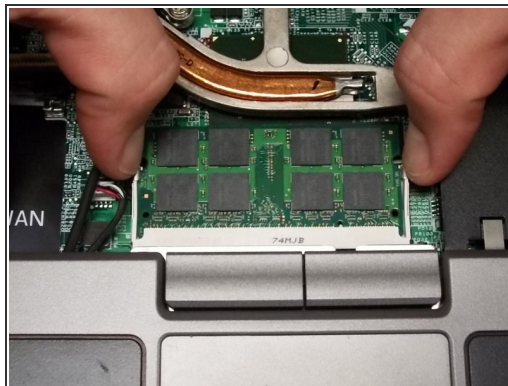
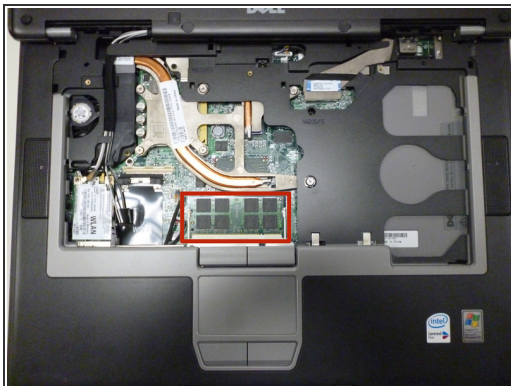


## Step 6



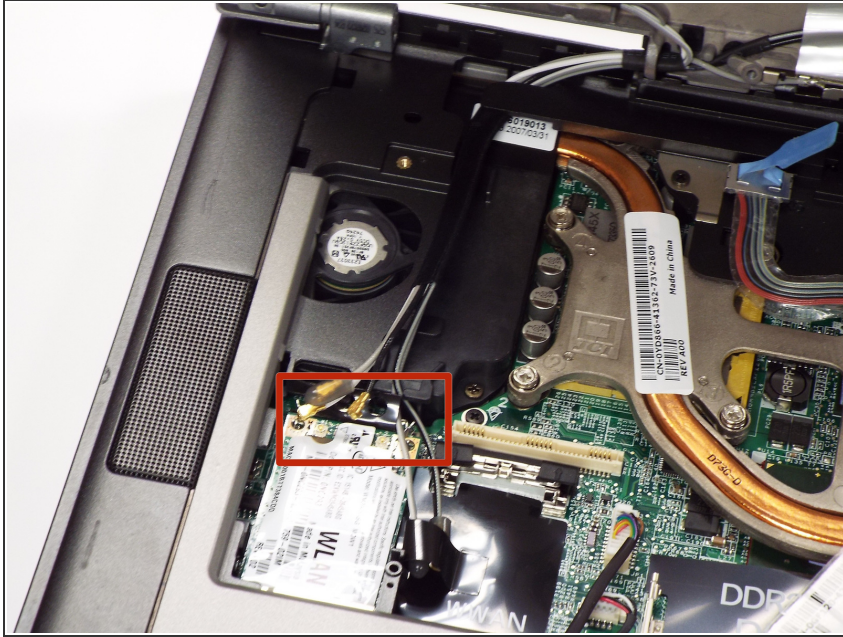
- Now, remove the keyboard screws then the keyboard. There is a ribbon cable (wires) attached to bottom, be careful not to tear it.
- Remove the ribbon from the laptop motherboard, this will allow you to set the keyboard aside.

## Step 7



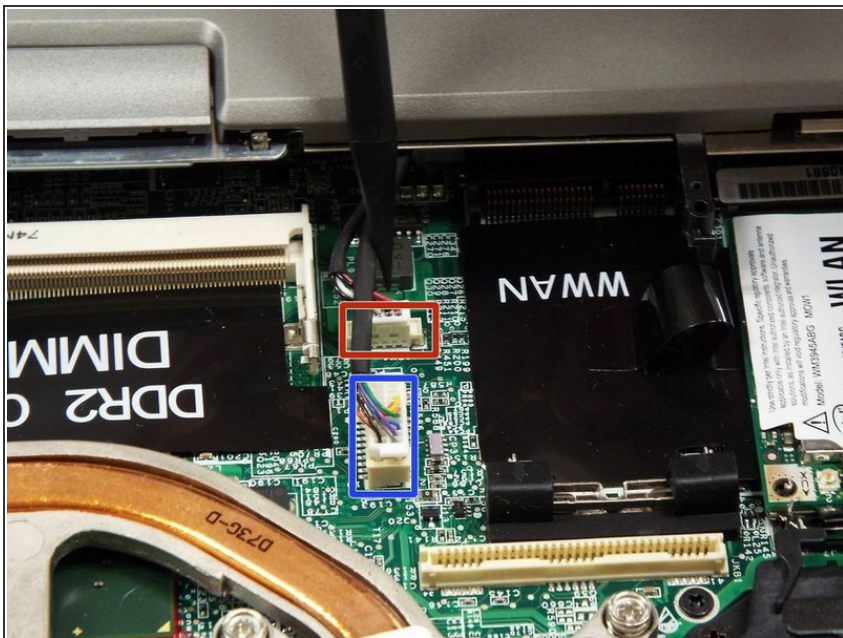
- Remove the memory chip under the keyboard by pulling the two tabs away from each other as shown in second picture. (Yes there is one on the bottom as well)

## Step 8



- Disconnect the wireless card from the bottom-corner.
- Push the retaining tab and lift the card out.
- Do this for the ethernet card which is in the same spot.

## Step 9



- Remove the cable that connects the speaker (small rectangle) to the frame by pulling straight out. The cable is located to the left of DDR2 DIMM A.
- Remove the cable that connects the track pad (large rectangle) to frame by pulling straight out. The cable is also located to the left of DDR2 DIMM A.



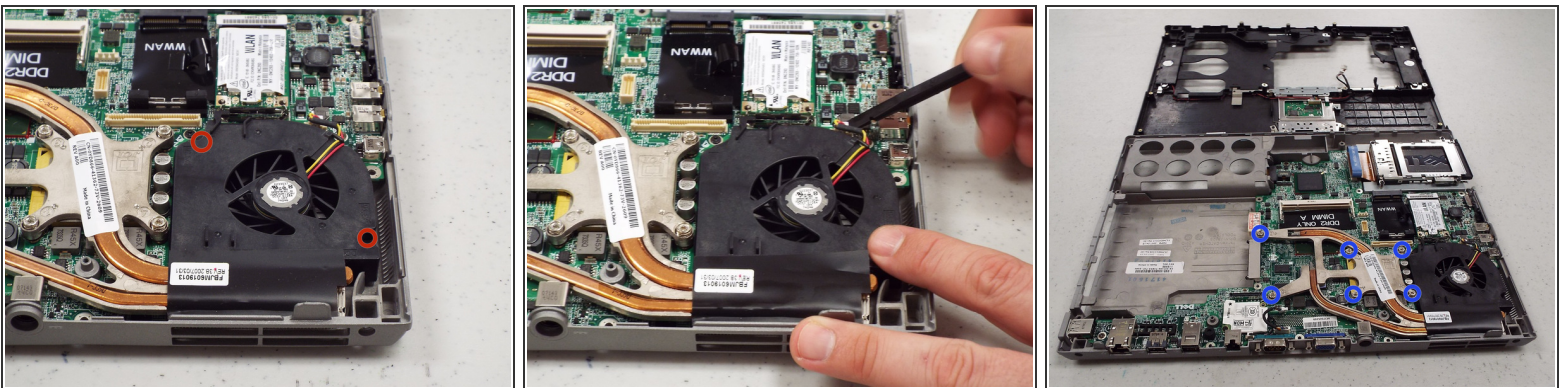
## Step 10



- Remove 3 Screws that hold the upper case to the mother board.
- Remove the upper casing from the bottom casing.

⚠ \*note— when prying shell from laptop – gently pry open 3 tabs by the CD-ROM with spudger.

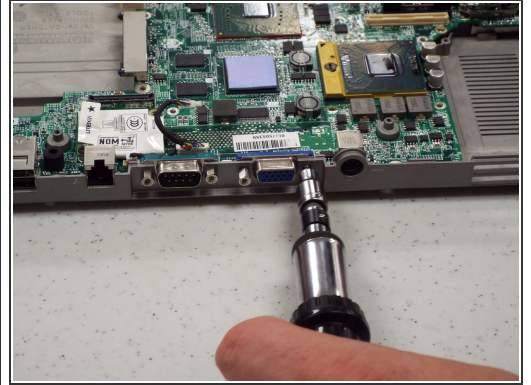
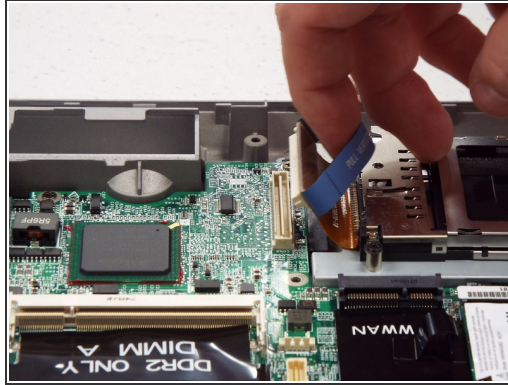
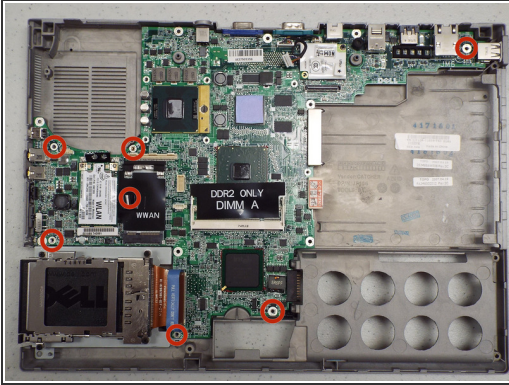
## Step 11



- Remove 2 screws for fan removal – both 5.6 mm length x 2.31 mm width – remove the fan power cable.
- Unscrew 6 spring loaded screws from Heat Sink. These are permanently attached to heat sink and will not come off.

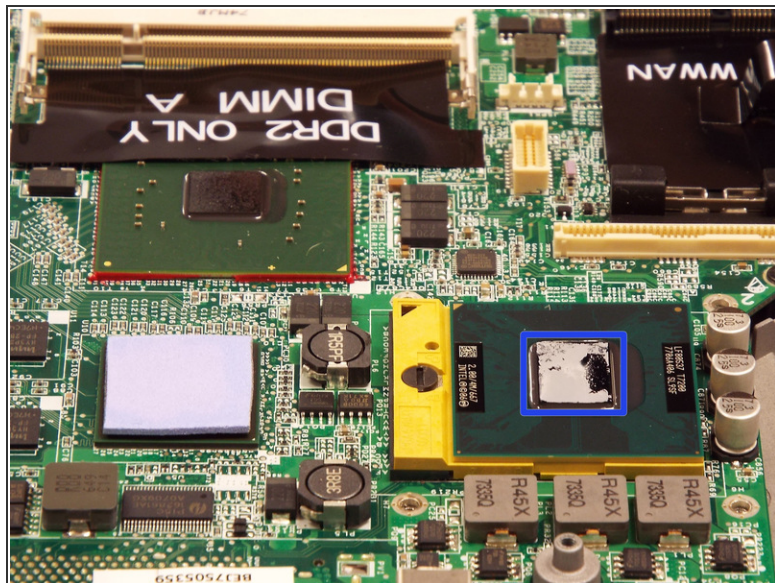
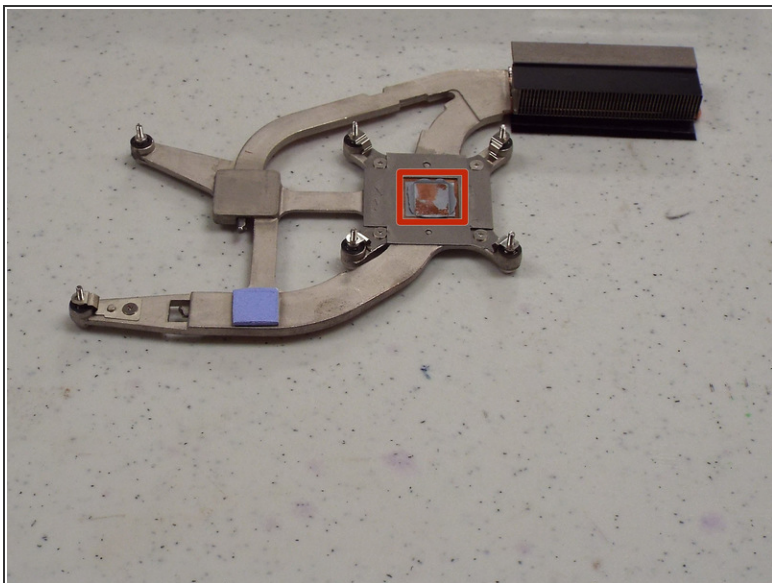


## Step 12



- There are 7 screws that need to be removed around edge of Motherboard. 4 of the screws are 3.73mm length x 1.90mm width
- ⓘ 3 of the screws are 3.80mm length x 1.89mm width. One of these is near top left of Dell MCIA. The other is near top left of WWAN. An there is one underneath the Black WWAN label.
- Remove the PCMCIA connector from the motherboard.
- Turn the laptop on the side and remove 2 female hex screws from video card and 2 posts from serial port using socket driver (3/16 socket) All hex screws are 10.23mm x 2.66mm size

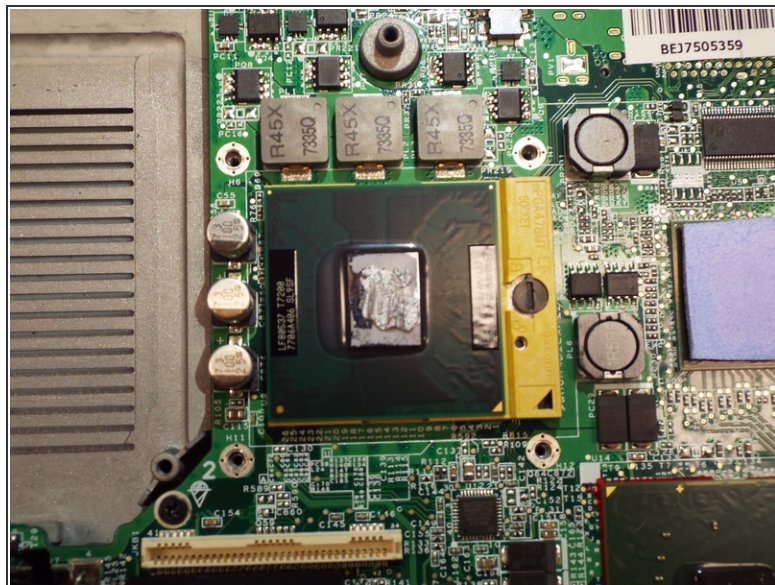
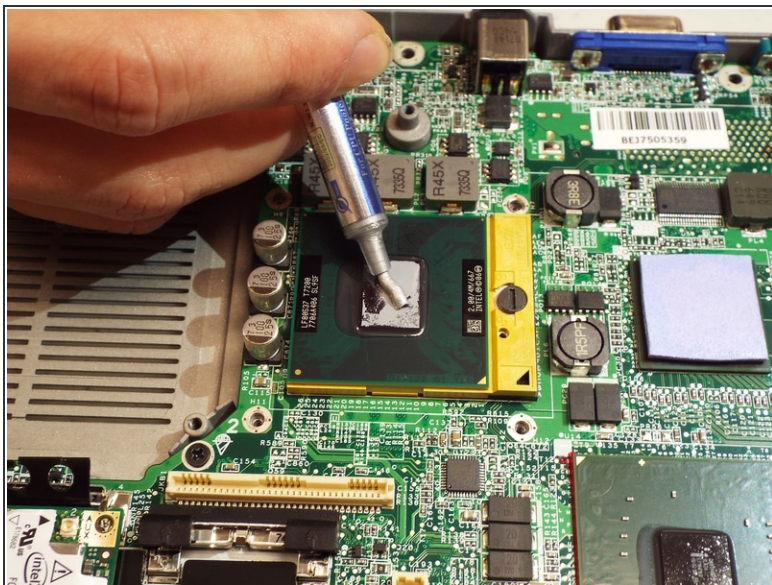
## Step 13 — Thermal Paste



- Using a lint free cloth and a drop of TimClean or ArctiClean to clean residue from the heat sink.
  - Using a lint free cloth and a drop of TimClean or ArctiClean to clean residue off CPU.
  - Wipe with a clean lint free cloth to remove any residue of cleaner.
- ⚠ Do not touch with fingers!
- Allow to dry completely.



## Step 14



- Dispense a small amount of thermal paste onto processor.
- Using your rubber finger stall or spudger spread a thin, even layer over processor.
- The processor is ready for heat sink installation.

To reassemble your device, follow these instructions in reverse order.

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